

[54] ROTATABLE CONTACTLESS ANTENNA
COUPLER AND ANTENNA

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[21] Appl. No.: 140,523

[22] Filed: Jan. 4, 1988

[51] Int. Cl.⁵ H04B 1/18; H01Q 1/24

[52] U.S. Cl. 455/89; 455/90;
455/280; 455/348; 379/433; 343/702; 343/882

[58] Field of Search 455/89, 90, 83, 347,
455/348, 349, 351, 269, 280; 379/428, 433, 440;
343/702, 869, 873, 872, 882

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[57] ABSTRACT

A rotatable contactless RF signal coupler, which couples RF signals between an antenna and an RF signal processor in a portable radio, along with an antenna capable of operating in two modes is described herein. Specifically, the signal coupler includes a transformer that is primarily located within the hinge formed by the housing of the radio and a rotatable flip portion. Substantially constant inductive coupling is maintained in the coupler regardless of rotation. The antenna is capable of operating in a narrow band and a wide band mode to afford antenna operation through varied conditions.

16 Claims, 2 Drawing Sheets

